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**PROTECTIVE SHROUD FOR FCC FEED NOZZLES
AND METHOD FOR DESIGNING SUCH SHROUD**

ABSTRACT OF THE DISCLOSURE

10 A protective shield for protecting a feed nozzle encloses, not only the circumference of the feed nozzle, but also encloses and protects the end of the feed nozzle. The protective shield includes an open portion in its end which corresponds to, and surrounds the slit 15 in the end of the feed nozzle. Optimal shape of the open portion is determined by spray visualization tests.